IN THE CLAIMS:

Please cancel claims 10 and 15 and amend claims 1-4, 9 and 11-14 as follows. The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended). A method for simultaneously developing a family of complex systems having a common software architecture platform, the family of complex systems including a plurality of complex systems, the method comprising:

constructing an initial requirements object model which explains abstract concepts in terms of a structured vocabulary,

forming an initial set of use cases based on the initial requirements object model, the use cases describing interaction of users with each of said complex systems in terms of abstract concepts;

forming [[a]] an initial functional requirements specification (FRS) which includes use cases ~~that describe interaction of users with said complex systems in terms of abstract concepts~~,

forming [[a]] an amended requirements object model ~~which explains the abstract concepts in terms of a structured~~

~~vocabulary~~ based on the initial FRS and thus in consideration of the initial set of use cases, ~~developing the~~

forming additional use cases based on analysis of the amended requirements object model,

changing the FRS in light of the additional uses cases,

forming another amended requirements object model based on the changed FRS simultaneously with the formation of the ~~requirements object model~~ additional use cases,

repeating the additional use case formation step, the FRS changing step and the amended requirements object model formation step until all desired use cases have been formed and considered, and

~~amending the~~ obtaining a final requirements object model ~~while the use cases are being developed, the requirements object model being completed~~ once all of the desired use cases have been ~~developed~~ considered.

Claim 2 (Currently Amended). A method as claimed in Claim 1, wherein the functional requirements specification (FRS) includes one or more chapters, further comprising:

establishing one or more FRS authoring teams for separate chapters,

designating a single object model control team to control internal consistency of the requirement object ~~model~~ models,

forming one or more overlapping modeling teams where each modeling team includes members of the object model control team together with one or more members of respective FRS authoring teams, and

providing that overlapping modeling teams for their chapters construct use cases and provide respective portions of the structured vocabulary.

Claim 3 (Currently Amended). A method as claimed in Claim 1, wherein differences between members of the family are expressed in the requirements object ~~model~~ models.

Claim 4 (Currently Amended). A method as claimed in Claim 2, further comprising:

constructing ~~an~~ the initial requirements object model in at least one of the modeling teams,

performing the FRS authoring of the use cases on the basis of the initial model, and

performing fine tuning of the use cases by the object model control team.

Claim 5 (Previously Presented). A method as claimed in Claim 2, further comprising carrying out FRS authoring of the use cases of several chapters in parallel by the respective FRS

authoring teams.

Claim 6 (Original). A method as claimed in Claim 1, wherein the complex systems are medical diagnostic imaging systems, notably, diagnostic x-ray examination systems.

Claim 7 (Previously Presented). A family of complex systems, notably a family of medical imaging systems, obtained by the method of claim 1, wherein separate complex systems support respective, different subsets of the use cases.

Claim 8 (Previously Presented). A method as claimed in Claim 1, where the precise behavior of one or more use cases differs among members of the family according to variations expressed in the object model, notably by different subclasses of a general class, by different multiplicities of relationships, or by different values of attributes.

Claim 9 (Currently Amended). A method as claimed in Claim 1, further comprising the step of expressing differences between members of the family in the requirements object ~~model~~ models using at least one of the following mechanisms:

different members of the family are expressed using different subclasses of a generalized class,

different members of the family are expressed using different multiplicities in relationships between classes, and different members of the family are expressed using different values for an attribute of a class.

Claim 10 (Cancelled)

Claim 11 (Currently Amended). A method as claimed in Claim 1, further comprising analyzing the requirements object ~~model~~ models to identify difficulties and shortcomings, the requirements object ~~model~~ models being amended in light of the identified difficulties and shortcomings.

Claim 12 (Currently Amended). A method as claimed in Claim 1, further comprising expressing the use cases in the terminology of the requirement object ~~model~~ models.

Claim 13 (Currently Amended). A method as claimed in Claim 1, further comprising considering the functional requirements specification complete when all of the use cases are expressed in the terminology defined by the requirements object ~~model~~ models.

Claim 14 (Currently Amended). A method as claimed in Claim 1, wherein since the additional use cases are ~~developed~~ formed

simultaneous with the formation of the amended requirements object ~~model~~ models, the amended requirements object ~~model is~~ models are thereby formed during the formation of the functional requirements specification.

Claim 15 (Cancelled).